

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

No claims are currently being added or cancelled.

Claims 1, 4, 5 and 17 are currently being amended, whereby support for the amendments to claims 1 and 17 may be found, for example, on page 7, lines 7-23 of the specification.

This amendment and reply amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-17 are pending in this application.

Request for Entry of After-final Amendment and Reply:

Applicant respectfully requests entry of this after-final Amendment and Reply, since it is believed to place this application in condition for allowance.

Interview at PTO:

Applicant's representative appreciates the courtesies extended to him by Examiner Thompson, with respect to a personal interview conducted at the PTO on July 26, 2006. The comments provided on the Interview Summary form are correct.

Claim Rejections – Prior Art:

In the Office Action, claims 1 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,719,681 to Sasanuma in view of U.S. Patent No. 5,671,277 to Ikenoue; and claims 2-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sasanuma in view of Ikenoue and U.S. Patent No. 5,936,741 to Burns. These rejections are traversed with respect to presently pending claims 1-17, for at least the reasons given below.

The present invention is directed to a color image forming apparatus which can assuredly add a specific hidden pattern to an output image whenever the output image is supplied, as described on page 3, lines 15-20 of the specification.

To this end, a color image forming apparatus according to the presently claimed invention includes specific hidden pattern control signal synthesizing means for adding the specific hidden pattern on an output image when either the hardware control signal or the software control signal is detected, and for not adding the specific hidden pattern on the output image when neither the hardware control signal nor the software control signal is detected.

With respect to the rejection of claims 1 and 17 based on the combination of Sasanuma and Ikenoue, page 5 of the Office Action correctly recognizes that Sasanuma does not expressly disclose that a specific hidden pattern is added on an output image when image data is supplied even though a software control signal is not supplied. The Office Action asserts, however, that Ikenoue discloses adding a specific hidden pattern (figure 8b; and figure 9 of Ikenoue) on an output image (column 8, lines 18-26 of Ikenoue) when a software control signal is supplied (figure 2, 2nd generation; and column 6, lines 38-41 and lines 45-47 of Ikenoue), and when the image data is supplied even though the software control signal is not supplied (figure 2, 1st generation; and column 6, lines 35-38 and lines 41-45 of Ikenoue).

Applicant respectfully disagrees with the assertions made in the Office Action with respect to Ikenoue.

In detail, Ikenoue is directed to an image forming apparatus that can prevent an illegal copy from being made and that can prevent the leakage of secret documents by copying. To this end, Ikenoue provides processing of additional data that can be embedded sufficiently in a document (see column 8, lines 16-17 of Ikenoue). The additional data ("1101") is embedded at positions as shown in FIG. 8(c) of Ikenoue (see column 8, lines 24-25 of Ikenoue).

To this end, Ikenoue merely discloses an additional pattern to image data, as shown in FIG. 8(c) of Ikenoue. Ikenoue does not teach or suggest that the specific hidden pattern is added when either a hardware control signal or a software control signal is detected, and Ikenoue does not teach or suggest that the specific hidden pattern is not added on the output image when neither the hardware control signal nor the software control signal is detected.

In more detail, Ikenoue always outputs additional data when copies are made of a document. As shown in Figure 6 and as described in column 6 of Ikenoue, when a user desires to make copies of an original document that does not have any additional data (Source 0), each of those 'first generation' copies is provided with its own unique additional data code (e.g., 1, 2, . . . , n). When a user then attempts to make one or more copies of a 'first generation' copy, those 'second generation' copies are provided with their own unique two-digit additional data code (e.g., n1, n2, . . . , nm). As is clear from the above discussion of the operation of Ikenoue, that reference treats first generation copies the same as second generation copies, whereby a control signal is provided in the system of Ikenoue to add additional data to a copy, no matter which generation of copies is being made. Accordingly, the Office Action's comments concerning the different operation of Ikenoue with respect to first generation copies and second generation copies is incorrect.

Please note that Ikenoue is directed to the prevention of an illegal outflow (e.g., illegal copying) of documents, and thus has a much different object than that of the present invention; and, to that end, Ikenoue does not teach or suggest the above-mentioned features of presently pending independent claims 1 and 17.

As described on page 7, lines 17-23 of the specification, by outputting the specific hidden pattern when the hardware control signal is detected even when the software control signal is not detected, this allows for the correct inclusion of the specific hidden pattern in important documents in the event that a software bug in the image forming apparatus did not allow for the software control signal to be output. While this may cause sometimes outputting the specific hidden pattern in cases where it is not needed (when the software does not have a bug), the added security obtained by the either/or recitation more than makes up for this over-inclusion of the specific hidden data in output images. Again, please refer to page 7, lines 7-23 of the specification.

Since Sasanuma does not teach or suggest the features discussed above that are lacking in the disclosure of Ikenoue (as recognized in the Office Action), presently pending independent claims 1 and 17 are patentable over the combined teachings of Sasanuma and Ikenoue.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicant believes that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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